

Remarks

1. Summary of the Office Action

In the office action mailed March 4, 2008, the Examiner rejected 1-3, 5-7, 12, and 14 under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent Application Pub. No. 2004/0228292 (Edwards) in view of U.S. Patent No. 6,501,740 (Sun) in view of U.S. Patent No. 6,141,350 (Mahale), and the Examiner rejected claims rejections of claims 8-11 and 13 under 35 U.S.C. § 103(a) as being allegedly obvious over Edwards in view of Sun in view of Mahale in view of U.S. Patent Application Pub. No. 2004/0190489 (Palaez).

2. Status of the Claims

Pending are claims 1-3 and 5-14, of which claim 1 is independent.

3. Response to Rejections

Of the pending claims, claim 1 is independent and stands rejected as being allegedly obvious over Edwards in view of Sun in view of Mahale.

Claim 1 recites that each user station is (i) a half-duplex capable station or (ii) a half-duplex and full-duplex capable station, and that, during a real-time media session between a plurality of user stations via a communication server, the communication server detects that a half-duplex capable station joins the session and that the communication server responsively directs each other participating station to operate in the half-duplex mode.

This functionality is not disclosed or suggested by Edwards, Sun, and Mahale, and the functionality does not logically follow from the limited teachings of Edwards, Sun, and Mahale. Thus, *prima facie* obviousness of the claimed invention over Edwards in view of Sun in view of Mahale does not exist.

In rejecting claim 1, the Examiner admitted that Edwards does not specifically disclose the limitation of during the real-time media session, the communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode. The Examiner then proceeded to identify certain concepts disclosed by Edwards and Sun, but those concepts clearly would not reasonably lead one of ordinary skill in the art to achieve the invention recited by claim 1.

First, the Examiner pointed out that Edwards discloses that users of mobile stations may operate in a full-duplex mode or half-duplex mode. Edwards' disclosure that users may operate in full-duplex or half-duplex mode clearly does not lead to the invention of claim 1. The ability of a user to operate in full-duplex or half-duplex would not logically lead one to achieve the claimed functionality of the communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode. Indeed, Edwards accommodates concurrent use of both half-duplex and full-duplex communication. (*See, e.g.*, Edwards at paragraph 0013.)

Second, the Examiner pointed out that Edwards discloses that users of mobile stations may terminate the communication if a device leaves the coverage area of the communication system. This teaching also does not logically lead to the functionality of claim 1. The fact that a user can lose coverage and drop out of a communication session clearly does not suggest or reasonably lead to a communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode.

Third, the Examiner pointed out that Sun discloses the concept of a user joining an existing conference by pressing a join button. Clearly, the mere concept of a user being able to join an existing conference does not reasonably or logically lead to the claim function of a

communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode.

Fourth, the Examiner pointed out that Sun also discloses the concept of conferences being operable in either a full duplex mode or a half duplex mode. But again, the mere ability to conduct a conference in one of these modes does not reasonably or logically lead to the claim function of a communication server detecting that a half-duplex station joins the session and responsively directing each other participating station to operate in the half-duplex mode.

After noting these teachings of Edwards and Sun, the Examiner asserted that it would have been obvious to incorporate Sun's teaching into Edward's teaching:

It would have thus been obvious to a person skilled in the art at the time the invention was made to incorporate the concept of having the capability of joining an existing conference as disclosed by Sun into the method for providing full duplex and half duplex dispatch calls, in order to efficiently ensure that users of mobile devices are capable of joining conference calls that are held in half duplex or full duplex modes.

(See Office Action at page 4.) This assertion by the Examiner, however, does not support a conclusion that claim 1 is obvious under 35 U.S.C. § 103. Applicant explained all of the above in the last response, and the Examiner has not rebutted Applicant's points.

Next, the Examiner asserted that the combination of Edwards and Sun fails to disclose the specific limitation of responsively directing each other participating station to operate in the half-duplex mode, when a half duplex station joins the session. And the Examiner noted that paragraph 0014 of Edwards teaches that if any half-duplex radios are involved in a session with full-duplex radios, the full-duplex radios must wait for the half-duplex radios to stop transmitting before beginning to speak. The Examiner then asserted that it was well known to direct all radios of a system to a half-duplex mode due to individual radio capabilities. In particular, as alleged support for this conclusion, the Examiner asserted:

Mahale discloses of such a concept as Mahale discloses of auto-negotiation in which makes it possible for data communication devices to exchange information about their abilities over a link segment and allows a data communication device to select the best transmission speed and transmission mode based on capabilities of the device at opposite of the link (col1 lines 15-39). Mahale further discloses that if both ends of the link support full duplex mode, Device A selects this mode. However, if device C connected to device A supports only half duplex mode, device A automatically detects these capabilities of device C and selects half duplex mode (responsively directing each other participating station to operate in half duplex mode, when a half duplex station joins the session, col1 lines 39-46), which is accomplished through a hub that senses the capabilities (col1 lines 26-30).

(See Office Action at page 5.) In turn, the Examiner asserted:

Thus it would have been obvious to a person skilled in the art at the time of the invention to incorporate the concept of stepping down the capabilities of all the radios in a conference due to one radio with lower capabilities (directing all the radios of a system to half-duplex mode which is a lower capability) as disclosed by Mahale into the method for providing full duplex and half duplex dispatch calls as disclosed by the combination of Edwards and Sun, in order to provide conference service to all radio, no matter it's [sic] capability.

(*Id.*)

First, Applicant notes that the Examiner erred in characterizing what Mahale teaches. Parenthetically in the first indented quote above, the Examiner seems to have asserted that Mahale teaches at column 1, lines 39-46 the feature of "responsively directing each other participating station to operate in half duplex mode, when a half duplex station joins the session," since the Examiner cited column 1, lines 39-46, of Mahale still in the parenthetical and directly after setting forth that text. A review of Mahale's disclosure at column 1, lines 39-46, however, does not teach "responsively directing each other participating station to operate in half duplex mode, when a half duplex station joins the session." Rather, at best, that portion of Mahale teaches a peer-to-peer auto-negotiation process by which, when device A is connected with device C, device A detects capabilities of device C and, if device C supports only half duplex mode, device A detects that capability of device C and automatically selects half duplex mode

for its own operation as well. That teaching does not amount to "responsively directing each other participating station to operate in half duplex mode, when a half duplex station joins the session," and no reason other than hindsight would exist to interpret that teaching in such a manner.

Furthermore, the Examiner's parenthetical phrase "which is accomplished through a hub that senses the capabilities (col1 lines 26-30)" appears to be unsupported by the cited portion of Mahale as well. Mahale teaches at column 1, lines 26-30, that a hub that supports full duplex operation on some or all of its ports can use the auto-netogiation protocol to inform devices connected to the hub that also support full duplex operation that they may configure themselves to use full duplex operation. But this disclosure is no more than another example of peer-to-peer auto-negotiation. In this example, the peers are the hub and a connected device, whereas in the example with devices A and C, devices A and C were the peers. In either case, the best Mahale teaches is the mere concept that one device may learn the full duplex or half duplex capabilities of another device to which it is connected and may responsively auto-configure itself in a commensurate manner.

These teachings of Mahale, like the remainder of Mahale, do not amount to the claim feature of a communication server through which user stations engage in a real-time media session detecting that a half-duplex capable station joins the session and responsively directing each other participating station to operate in the half-duplex mode. (Likewise, the Examiner's statement in the second indented quote that Mahale discloses "the concept of stepping down the capabilities of all the radios in a conference due to one radio with lower capabilities (directing all the radios of a system to half-duplex mode which is a lower capability)" is factually incorrect. Mahale does not include such disclosure.)

Furthermore, a person of ordinary skill in the art would have no logical reason to combine the disclosure of Mahale into the teachings of Edwards, because Edwards already achieves the goal of providing conference service concurrently to both half duplex stations and full duplex stations. In this regard, the Examiner reasoned in the office action that it would be obvious to combine Mahale into the disclosures of Edwards and Sun "in order to provide conference service to all radio, no matter its capability." That seems to assume that, without the benefit of Mahale's disclosure, a half-duplex station would not be able to participate in a conference with a full-duplex station within the disclosure of Edwards/Sun. Yet, in fact, Edwards already provides a workable mechanism for allowing a half-duplex radio to remain in a conference when other participating radios switch over to use full-duplex communication: the full duplex radios will simply wait for the half duplex radios to stop talking before the full duplex radios start to speak. (See Edwards at para. 0014). Because Edwards already provides a workable mechanism for conferencing between half-duplex and full-duplex radios, a person of ordinary skill in the art would not have reason to look to Mahale in an effort to allow a half-duplex station to conference with full-duplex stations.

Ultimately, the invention recited by claim 1 does not reasonably follow from the limited teachings of Edwards, Sun, and Mahale. Because the combination of Edwards, Sun, and Mahale does not teach a communication server (e.g., MCU) detecting that a half-duplex capable station joins the session and responsively directing each other participating station to operate in the half-duplex mode, and because a person of ordinary skill in the art would not be compelled to consider the teachings of Mahale since Edwards already provides a way to conference between full-duplex and half-duplex stations, *prima facie* obviousness of claim 1 over the combination of

Edwards, Sun, and Mahale does not exist. Therefore, Applicant submits that claim 1 is allowable.

Furthermore, without conceding any of the Examiner's assertions, Applicant submits that dependent claims 2-3 and 5-14 are allowable as well for at least the reason that they depend from allowable claim 1.

4. Conclusion

For the foregoing reasons, Applicant respectfully requests favorable reconsideration and allowance of all of the pending claims.

Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-2141.

Respectfully submitted,

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